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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,721	07/22/2003	Richard Brussel	017399-0210	4930
22428	7590	01/26/2006	EXAMINER	
FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			STACOVICI, STEFAN	
			ART UNIT	PAPER NUMBER
			1732	

DATE MAILED: 01/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/623,721

Applicant(s)

BRUSSEL, RICHARD

Examiner

Stefan Staicovici

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) 3-5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/26/04; 1/13/06
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I, claims 1-2 in the reply filed on January 13, 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Specification

2. The abstract of the disclosure is objected to because patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains, specifically a process for making a fiber-reinforced molding. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the manufacture" in line 1. There is insufficient antecedent basis for this limitation in the claim. Further, in claim 1, it is unclear whether the

“resin mixture” of line 3 is the same or different than that of line 6. Also in claim 1, it is unclear whether the “resin mat apparatus” of line 2 is the same or different than that of line 13. Further clarification is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 04-135704 in view of Tamura *et al.* (US Patent No. 4,973,440) and in further view of Nakamura *et al.* (US Patent No. 5,202,071).

JP 04-135704 teaches the basic claimed continuous process of making a sheet molding compound (SMC) in a resin mat apparatus including, providing a lower carrier film (3), depositing a resin filler paste (5) onto said lower carrier film (3), providing an upper carrier film (9), depositing a resin filler paste (11) onto said upper carrier film (9), depositing a reinforcing filler (6) onto said lower carrier film (3), superposing said lower carrier film (3) and said upper carrier film (9) holding said resin filler paste (5, 11) to form a laminate, conveying said laminate through a imbibing and kneading section (12) formed by rollers (13d) and conveying said kneaded laminate through a temperature controlled section (16) (annealing system) in a

meandering manner for a predetermined time to thereby age (maturation period) said laminate and form said SMC (see Abstract and Figure 1).

Regarding claim 1, although JP 04-135704 teaches a resin paste and fiber filler for making a SMC, JP 04-135704 does not specifically teach a thickening agent and glass fibers. However, the use of a thickening agent and glass fibers in the composition of a SMC is well known as evidenced by Tamura *et al.* ('440) who teach a process for making a SMC including providing a resin mixture including, thickeners and glass fibers (see col. 4, lines 48-58 and col. 5, lines 13-17). Therefore, it would have been obvious for one of ordinary skill in the art to have provided a thickening agent and glass fibers as taught by Tamura *et al.* ('440) in the resin mixture in the process of JP 04-135704 because, Tamura *et al.* ('440) specifically teach that such is a typical SMC composition, whereby JP 04-135704 teaches a SMC resin paste, hence requiring the teachings of Tamura *et al.* ('440) to function as described and also because of known advantages such as increased strength and improved moldability that such a composition provides.

Further regarding claim 1, although JP 04-135704 teaches upper and lower support films (3, 9), JP 04-135704 does not teach upper and lower belts and, a meandering belt. Tamura *et al.* ('440) teach a process for making a SMC including upper and lower belts (see Figure 1) for supporting upper and lower support films (4a, 4b) and a support belt for transporting the formed SMC. Therefore, it would have been obvious for one of ordinary skill in the art to have provided upper and lower belts and a support belt as taught by Tamura *et al.* ('440) in the process JP 04-135704 because, Tamura *et al.* ('440) teach that such belts provide support for the

films forming the SMC, hence providing an improved molded product by reducing wrinkling and sagging of the film due to the weight of the resin paste being applied. It is noted that it is well known to use either belts or a support film in making an SMC in a continuous manner and as such, in view of the teachings of Tamura *et al.* ('440) it would have been obvious for one of ordinary skill in the art to have provided a meandering belt in the annealing system in the process of JP 04-135704 because of known advantages such as improved support of the resulting SMC laminate, ease of operation and process control and also because it is well known that belts and support films are equivalent alternatives.

Further regarding claim 1, although JP 04-135704 in view of Tamura *et al.* ('440) teaches a continuous process of making a sheet molding compound (SMC), JP 04-135704 in view of Tamura *et al.* ('440) do not teach cutting the resulting continuous SMC in a specified pattern and compression molding said pattern into a SMC structure. Nakamura *et al.* ('071) teach a continuous process for making a SMC structure including, forming an SMC laminate, cutting the resulting continuous SMC in a specified pattern and compression molding said pattern into a SMC structure in a heated mold (see col. 3, line 46 through col. 4, line 35 and Figure 1). Therefore, it would have been obvious for one of ordinary skill in the art to have continuously cut the resulting continuous SMC in a specified pattern and compression molded said pattern into a SMC structure as taught by Nakamura *et al.* ('071) in the continuous process of JP 04-135704 in view of Tamura *et al.* ('440) because of known advantages that a continuous process provides such as improved productivity, reduced waste and reduced costs by eliminating storage

requirements and also because, all references teach similar materials, processes and end-products.

Regarding claim 2, JP 04-135704 teaches conveying said kneaded laminate through a temperature controlled section (16) (annealing section) in a meandering manner for a predetermined time to thereby age (maturation period) said laminate and form said SMC (see Abstract and Figure 1). It is submitted that the amount of time that the laminate is in contact with the heated rollers of the annealing system (16) depends on the speed of the rollers and the distance traveled between the first roller (15) and the last roller (17).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Staicovici, Ph.D. whose telephone number is (571) 272-1208. The examiner can normally be reached on Monday-Friday 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael P. Colaianni, can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stefan Staicovici, PhD



1/21/06

Primary Examiner

AU 1732

January 21, 2006